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UNITED STATES DEPARTMENT OF AGRICULTURE

BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

FOREST INSECT INVESTIGATIONS

MEMORANDUM RE: STATUS OF SPRUCE BARK BEETLE ON KOOTENAI NATIONAL FOREST

(Letters & Map)

By
W. D. Bedard
Associate Entomologist

Forest Insect Laboratory
Coeur d'Alene, Idaho
December 15, 1937

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FILE COPY MISSOULA FOREST INSECT LABORATORY

Forest Insect Laboratory
Coeur d'Alene, Idaho
Jan. 4, 1938

Refer to file
Project K-2

Regional Forester
Federal Building
Missoula, Montana

Attention: Mr. Koch

Dear Sir:

I have your letter of December 29 commenting upon our report of the preliminary examination of spruce beetle infestations on the Kootenai National Forest.

I can appreciate your difficulty of determining an insect control policy for the spruce stands of this forest. In some areas the spruce stands are old and decadent, and in such condition are obviously more susceptible to insect attack. In these stands one can be somewhat assured that their protection would rest upon a program of maintenance control. However, it may be that we are experiencing an epidemic of this insect which if reduced would remain in an endemic status for a number of years. As you state, we do not know what the probabilities are.

In many areas within the Yellowstone Park the Engelmann spruce beetle has destroyed a very large percentage of all spruce trees above 9 or 10 inches in diameter during the past three or four years. We do not know if the infestation which exists on the Kootenai National Forest is of the same character as the Yellowstone epidemic.

I concur most thoroughly in your suggestion that we make a more detailed survey of the Pinkham Creek spruce areas next spring for the purpose of securing more detailed information on the character of the stand being infested as well as the progress and potentials of the existing spruce beetle infestation. We will plan on securing these data.

Very truly yours,

James C. Evenden
Entomologist

cc to Forest Supervisor, Kootenai N. F.
Dr. Craighead, Washington, D. C.

12/12/37.

MEMORANDUM FOR J. C. EVENDEN

Re: Status of Spruce Bark Beetle on Kootenai National Forest

The first to the fifth day of November inclusive were spent on the Kootenai National Forest in company with Mr. George Stoltz, examining stands of Engelmann spruce which Mr. Elers Koch had reported to be infested with the Engelmann spruce beetle (Dendroctonus engelmanni Hopk.) Five of the main spruce bodies were examined, which included Pirkham, Sterling, Pete, and Spread Creeks and Spar Lake.

Pinkham Creek was examined first and most thoroughly. On the first day the stands were examined where the road crosses at the head of the drainage. In this locality spruce is practically a pure type the stand is over-mature with diameters ranging upward to 30 or 40 inches. Here there has been considerable killing by the beetle during the past few years, but the 1937 kill is decidedly heavier than any previous year. Examination of road logs showed no evidence which would indicate that the infestation had occurred as a result of this material, why although deep ditching along the road may have seriously affected the drainage and prevented sufficient water from reaching this moisture-loving species.

On the following day we walked up Pinkham Creek to the head. The lower portion of the drainage is mainly fir and larch, which changes near the middle of the drainage to young spruce, with patches of over-mature spruce at intervals. The young stands were practically immune from attack, but in all old stands there were a considerable number of beetle-killed trees with 1937 attacks common. In general the over-mature stands of spruce are suffering almost as severely from rotting

off at the stump as they are from beetle attack.

This same general condition held for all of the other areas examined except that in no case was spruce encountered in as pure stands as the Pinkham Creek drainage. In Pete and Spread Creeks the mixture is mainly spruce and white pine, while in the Spar Lake region the stand is mainly hemlock and cedar with small patches of huge spruce trees.

There is no doubt that the Engelmann spruce beetle has killed a considerable quantity of spruce in all of these spruce areas, and that the 1937 kill is heavier than in any previous year. The most serious condition is apparent in Pinkham Creek, primarily because the largest body of spruce is in this area. It is my opinion that these large, over-mature spruce trees have reached the age when death is inevitable whether from insects or rot, and that control is inadvisable unless the plan is to protect the stand for only a short time until logging can be done.

During the course of our examination at Spar Lake, we encountered a group of a dozen white pine trees which had been attacked and killed during 1937 by the mountain pine beetle. These were all large trees 30 inches or over in diameter and were located at the mouth of Whoopee Creek. Mr. Stoltz informed me that logging is contemplated in this drainage during 1938. In fact, it was my impression from conversation with Mr. Stoltz that the Kootenai Forest planned to cut all its over-mature stands just as rapidly as they could be sold.

William D. Bedard

UNITED STATES DEPARTMENT OF AGRICULTURE
FOREST SERVICE
KOOTENAI NATIONAL FOREST

ADDRESS REPLY TO
FOREST SUPERVISOR
AND REFER TO

LIBBY, MONTANA

BUREAU OF ENTOMOLOGY
RECEIVED
OCT 23 1937
Coeur d'Alene, Ida. Station

S
Insect Control-Kootenai

October 21, 1937

Mr. James C. Evenden, Entomologist
Forest Insect Laboratory
Coeur d'Alene, Idaho

Dear Mr. Evenden:

Reference is made to your letter of October 12.

There is enclosed a map showing the main spruce bodies in red and the nearest roads leading to the areas in blue.

Bingham Creek as mentioned in your letter should be Pinkham Creek; Peak should be Pete.

If you would let us know a short while in advance, we shall be glad to send someone with whomever you send over if I am unable to go myself.

Very truly yours,

Enc.

K. A. KLEHM, Forest Supervisor

By